

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A deadlocking assembly for use in locks, said assembly comprising:

a lock bolt operatively coupled to a rack;

a drive means adapted to be rotatably driven and adapted to engage said rack to cause it to move in one axis;

said drive means including a deadlocking arrangement whereby when said bolt is in an extended position, external movement of the bolt towards the retracted position causes said rack to abut said deadlocking arrangement without engaging said drive means; means; wherein said drive means is a pinion gear including a plurality of gear teeth for engaging a plurality of teeth on said rack; and

wherein said rack includes a cavity so located to allow for a first arm extending from said pinion gear to pass into the cavity upon rotation of said pinion gear, said first arm effecting said deadlocking arrangement by abutting against a wall which defines a portion of said rack cavity.

2-3. (Canceled)

4. (Currently amended) The deadlocking assembly as in ~~claim 3~~, claim 1 wherein said pinion gear includes a second arm ~~adapted to abut~~ which abuts against a shoulder in said rack when said rack has been fully retracted.

5. (Original) The deadlocking assembly as in claim 4, wherein said second arm is parallel to and extends in the opposite direction to said first arm.

6. (Currently amended) A deadlocking assembly for use in locks, said assembly comprising:

a rack having a plurality of teeth and supporting at one end a locking bolt;

a pinion gear having a plurality of teeth ~~adapted to engage~~ for selectively engaging said rack teeth to cause said bolt to move in a longitudinal direction between an extended and a retracted position, said pinion gear further having ~~two~~ first and second outwardly opposing arms, wherein in the extended position the first of said arms ~~abuts~~ is disposed adjacent a surface bounding a cut out in the rack, and in the retracted position the second of said arms is located adjacent a surface, wherein forcing of said bolt ~~to the~~ toward the retracted position abuts said surface with said ~~second~~ first of said arms, thereby deadlocking said ~~bolt.~~ bolt; and wherein in the retracted position the second of said arms abuts the rack to prevent over travel of the bolt.

7. (New) The assembly of claim 1 wherein the first arm extends radially outwardly farther than do the pinion gear teeth.

8. (New) The assembly of claim 1 wherein the rack is formed as a single member.

9. (New) The assembly of claim 1 wherein the pinion rotates approximately 170 degrees from an unlocked position associated with the retracted position of the bolt and a locked position associated with the extended position of the bolt.
10. (New) The assembly of claim 6 wherein each of the first and second arms extends radially outwardly farther than do the pinion gear teeth.
11. (New) The assembly of claim 6 wherein the first arm extends radially outwardly in a first direction; and wherein the second arm extends radially outwardly in a second direction which is opposite to and substantially parallel to the first direction.
12. (New) A deadlocking assembly for use in locks, said assembly comprising:
- a lock bolt operatively coupled to a rack including a plurality of rack teeth;
 - a pinion gear including a plurality of gear teeth for rotatably engaging the rack teeth to cause the bolt to move between retracted and extended positions;
 - a first arm extending radially outwardly from the pinion gear and rotatable therewith;
 - the rack having a rack surface which faces away from the bolt so that the first arm may pass adjacent the rack surface upon rotation of the pinion gear; and
 - wherein when the bolt is in the extended position, external movement of the bolt towards the retracted position forces the rack surface against the first arm to deadlock the bolt.

13. (New) The assembly of claim 12 wherein the rack defines a rack cavity; and wherein the rack surface bounds the rack cavity so that the first arm may pass into the rack cavity adjacent the rack surface upon rotation of the pinion gear.

14. (New) The assembly of claim 13 wherein the rack includes a pair of opposed walls which extend from the rack surface away from the bolt and which bound the rack cavity therebetween.

15. (New) The assembly of claim 14 wherein each of the opposed walls includes a portion of at least one rack tooth so that the rack cavity is disposed intermediate the portion of the at least one tooth on one of the opposed walls and the portion of the at least one tooth on the other of the opposed walls.

16. (New) The assembly of claim 13 the bolt is mounted adjacent a first end of the rack; and wherein the rack cavity is disposed adjacent a second opposed end of the rack.

17. (New) The assembly of claim 12 the bolt is mounted adjacent a first end of the rack; and wherein the rack surface is disposed adjacent a second opposed end of the rack.

18. (New) The assembly of claim 12 wherein the first arm extends radially outwardly farther than do the pinion gear teeth.

19. (New) The assembly of claim 12 wherein when the bolt is in the extended position, the rack teeth and the gear teeth define therebetween a first gap and the first arm and the rack surface define therebetween a second gap which is smaller than the first gap whereby when the external movement of the bolt towards the retracted position forces the rack surface against the first arm, the gear teeth are disengaged from the rack teeth.

20. (New) The assembly of claim 12 wherein the pinion gear teeth are disengaged from the rack teeth when the external movement of the bolt towards the retracted position forces the rack surface against the first arm.

21. (New) The assembly of claim 12 wherein the rack is formed as a single member.

22. (New) The assembly of claim 12 wherein the pinion rotates approximately 170 degrees from an unlocked position associated with the retracted position of the bolt and a locked position associated with the extended position of the bolt.